

## EAST Search History

| Ref # | Hits | Search Query                 | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|------------------------------|---|------------------|---------|------------------|
| S1    | 85   | baeten.in.                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/06/08 14:48 |
| S3    | 2    | ("4829582").PN.              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2006/06/09 10:23 |
| S4    | 1391 | loudspeaker cooling          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/09 10:24 |
| S5    | 941  | S4 @ad<"20020816"            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/09 10:25 |
| S6    | 460  | S5 magnet\$5                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/09 10:26 |
| S7    | 0    | 2005/0238187                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/06/09 10:47 |
| S8    | 2    | "20050238187"                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/06/09 10:47 |
| S9    | 6510 | magnet\$6 enclosed diaphragm | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/09 10:53 |

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|     |      |  |   |     |    |                  |
|-----|------|--|---|-----|----|------------------|
| S10 | 1    | magnet\$6 near enclosed near diaphragm         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 10:54 |
| S11 | 6510 | magnet\$6 enclosed diaphragm                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 10:54 |
| S12 | 3377 | S11 @ad<"20020816"                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 10:55 |
| S13 | 3377 | S11 @ad<"20020816"                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 10:55 |
| S14 | 292  | S13 loudspeaker                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:08 |
| S15 | 14   | anodized cooling surface loudspeaker magnet\$7 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:09 |
| S16 | 8    | S15 @ad<"20020816"                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:12 |
| S17 | 422  | magnet\$7 stationary translat\$7 loudspeaker   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:15 |

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|-----|-----|---|---|-----|----|------------------|
| S18 | 0   | S17 "enveoped by the contours"                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:16 |
| S19 | 0   | S17 "enveloped by the contours"                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:16 |
| S20 | 0   | S17 enveloped near by near the<br>near contours   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:17 |
| S21 | 0   | S17 (enveloped near by near the<br>near contours) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:17 |
| S22 | 3   | S17 enveloped near contours                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:18 |
| S23 | 111 | S17 diaphragm                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:19 |
| S24 | 53  | S23 @ad<"20020816"                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:25 |
| S25 | 38  | S5 dimensional diaphragm                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:26 |

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|     |     |   |   |     |    |                  |
|-----|-----|---|---|-----|----|------------------|
| S26 | 38  | S25 @ad<"20020816"                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:27 |
| S27 | 31  | "inverted cone" loudspeaker             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:28 |
| S28 | 16  | S27 @ad<"20020816"                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:34 |
| S29 | 42  | loudspeaker (stationary near magnet)    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:36 |
| S30 | 27  | S29 @ad<"20020816"                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:36 |
| S31 | 744 | actuator inside space contour diaphragm | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:44 |
| S32 | 419 | S31 @ad<"20020816"                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:43 |
| S33 | 4   | S32 loudspeaker magnet\$7               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:44 |

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|     |      |   |   |      |    |                  |
|-----|------|---|---|------|----|------------------|
| S34 | 1153 | actuator space contour diaphragm          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND  | ON | 2006/06/09 14:47 |
| S35 | 645  | S34 @ad<"20020816"                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND  | ON | 2006/06/09 14:46 |
| S36 | 15   | S35 loudspeaker                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND  | ON | 2006/06/09 14:45 |
| S37 | 1851 | actuator contour diaphragm                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND  | ON | 2006/06/09 14:47 |
| S38 | 28   | actuator contour diaphragm<br>loudspeaker | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND  | ON | 2006/06/09 14:47 |
| S39 | 20   | S38 @ad<"20020816"                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND  | ON | 2006/06/09 14:47 |
| S40 | 0    | coil inside diaphragm loudspeaker         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | NEAR | ON | 2006/06/09 14:50 |
| S41 | 984  | coil inside diaphragm loudspeaker         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND  | ON | 2006/06/09 14:50 |

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|     |       |                               |   |     |    |                  |
|-----|-------|-------------------------------|---|-----|----|------------------|
| S42 | 609   | S41 and @ad<"20020816"        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:50 |
| S43 | 496   | S42 magnet\$7                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:51 |
| S44 | 93    | S43 stationary                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:58 |
| S45 | 0     | cooling adj bar loudspeaker   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:59 |
| S46 | 0     | (cooling adj bar) loudspeaker | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 14:59 |
| S47 | 10    | cooling adj plate loudspeaker | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 15:00 |
| S48 | 6     | S47 @ad<"20020816"            | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/09 15:29 |
| S49 | 42084 | "381".clas.                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 08:21 |

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|     |     |                                |   |     |    |                  |
|-----|-----|--------------------------------|---|-----|----|------------------|
| S50 | 191 | S49 cooling (bar or disk)      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 08:22 |
| S51 | 0   | S49 cooling near (bar or disk) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 08:22 |
| S52 | 115 | S50 @ad<"20020816"             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 08:22 |

## EAST Search History

| Ref # | Hits | Search Query  | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|------|---|---|------------------|---------|------------------|
| L1    | 10   | diaphragm connected with (disk or bar) loudspeaker          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:01 |
| L2    | 5    | diaphragm cooling with (plate or disk or bar) loudspeaker   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:02 |
| L3    | 0    | diaphragm cooling near (plate or disk or bar) loudspeaker   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:02 |
| L4    | 8    | diaphragm cooling same (plate or disk or bar) loudspeaker   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:02 |
| L5    | 8    | diaphragm (cooling same (plate or disk or bar)) loudspeaker | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:04 |
| L6    | 330  | (cooling same (plate or disk or bar)) loudspeaker           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:05 |
| L7    | 20   | (cooling near (plate or disk or bar)) loudspeaker           | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:15 |
| L8    | 44   | (cooling near fin) loudspeaker                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND              | ON      | 2006/06/12 15:15 |



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|     |      |  |   |     |    |                  |
|-----|------|--|---|-----|----|------------------|
| L9  | 26   | 8 @ad<"20020816"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:25 |
| L10 | 2    | cooling conduction (fins or plate or bar or disk) (anodized or anodised) loudspeaker | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:28 |
| L11 | 1696 | loudspeaker (cool or cooling)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:29 |
| L12 | 19   | 11 (anodised)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:30 |
| L13 | 19   | 11 (anodized)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:30 |
| L14 | 19   | 12 or 13   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:35 |
| L15 | 2154 | movable with cooling with device   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:37 |
| L16 | 0    | 15 loudspeaker (cone or diaphragm)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:36 |

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|     |       |  |   |     |    |                  |
|-----|-------|--|---|-----|----|------------------|
| L17 | 0     | 15 loudspeaker   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:37 |
| L18 | 1172  | 15 @ad<"20020816"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:38 |
| L19 | 0     | 18 loudspeaker   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:38 |
| L20 | 60523 | loudspeaker  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:39 |
| L21 | 5524  | 20 and (movable or moveable)                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:40 |
| L22 | 98    | 20 and (moveable or movable)adj<br>(disk or plate or bar or fin) | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:45 |
| L23 | 5     | 22 cooling   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:43 |
| L24 | 1     | 22 "heat sink"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:43 |

## EAST Search History

|     |     |                            |   |     |    |                  |
|-----|-----|----------------------------|---|-----|----|------------------|
| L25 | 436 | loudspeaker heat near sink | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:46 |
| L26 | 312 | 25 @ad<"20020816"          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | AND | ON | 2006/06/12 15:46 |